

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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**EX PARTE *DAVIS* et al.**

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**Application for Patent**

**Filed: July 22, 1999**

**Application No. 09/359,083**

**FOR:**

**INTERNET PAYMENT, AUTHENTICATION AND LOADING SYSTEM USING  
VIRTUAL SMART CARD**

**Examiner Jennifer Liversedge, Art Unit 3684**

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**REPLY BRIEF**

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Signed:                     /Kristina Gomez/                      
Kristina Gomez

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**I. STATUS OF CLAIMS**

Allowed claims: None

Claims objected to: None

Claims rejected: 1-8 and 34-49.

## **II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The rejections presented for review are as follows:

The rejections of claims 1-8 and 34-49 under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent No. 6,282,522 issued to *Davis et al.*

### III. ADDITIONAL ARGUMENTS

#### A. *Davis* is not an Enabling Reference

In the examiner's answer, it is argued that since "the reference specifically discloses that the functionality of the virtual card is provided for. Therefore, the *Davis* reference not only suggests that a virtual card might be used, hypothetically, but states that the system and method as set forth is operable for either a physical card or a virtual card. While specific reference to the virtual card is contained in only one location within the *Davis* reference, that portion clearly states that operability is afforded to either a physical or virtual card. And, accordingly, the components have operability for either being a physical card database or a virtual card database, etc."

The citation from *Davis* that is relied upon by the examiner is found in Column 11:10-14, which recites, "By way of example, other forms that a stored-value card may take are any electronic representations. Further, the functionality of stored-value card 5 may be implemented in software on client terminal 204, that is card 5 may be a 'virtual card.'" (underline added) Applicant respectfully disagrees with the examiner's assertion that this citation "states that the system and method set forth is operable for either a physical card or a virtual card" because the examiner does not provide rationale or evidence as to why this functionality is to be imported to each of the many devices described in *Davis*.

The examiner appears to be saying that since a virtual card might be used, it is thus inherent that all of the other required components of the claims related to a virtual card are found in *Davis*. Applicant respectfully submits examiner's assertions in *Davis* regarding operability afforded to either a physical card or a virtual card do not meet the standards for inherency described in the MPEP. In MPEP 2112 IV, Examiner Must Provide Rationale or Evidence Tending to Show Inherency, it states,

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

Applicant respectfully submits the examiner does not provide a basis of fact or technical reasoning to support a conclusion that characteristics attributed to *Davis* are inherent in the manner set forth in the MPEP. Hence, for this reason, Applicant believes the rejection under U.S.C. §102 (e) is improper.

## **B. *Davis* does not teach a Single Device as Required**

### **1. Elements not on a Single device**

As will be described in more detail as follows, independent of whether *Davis* teaches the asserted virtual functions, *Davis* does not describe a single device that possesses all of the limitations of the pending claims nor is one identified in the Final Rejection under §102 (e).

Claims 1 and 41 both recite a single device, namely, “server computer” comprising a “virtual smart card database,” a “hardware security module,” a “smart card emulator” and a “pseudo card reader module.” Applicant respectfully submits that the Final Office Action does not identify a single device with the limitations described with respect to the pending claims, such as recited claims 1 and 41. Further, Applicant respectfully submits that *Davis* does not teach such a device nor can such a device be said to be inherent in *Davis*.

In further detail, claims 1 and 41 recite “a virtual smart card database,” and “a hardware security device” that are both part of the required “server computer,” i.e., the single device. In the Final Rejection, these limitations of the OPAL server computer of claims 1 and 41 are mapped to the payment server 206 of *Davis* shown in Figs. 4-9, i.e., the virtual card database is mapped to database 223 (see Fig. 4), which Column 10:60-63 of *Davis* describes as being managed by the payment server 206. The Final Rejection also appears to map a “hardware security device” on the payment server 206 to the “security card” in *Davis*. For instance, *Davis* (Column 23: 61-63) recites, “Once the payment server had produced the TSK, it may decrypt the draw request and process the draw request in any suitable fashion with the security card.” Thus, the Final Rejection appears to equate the payment server 206 with the required server computer.

But, the pending claims describe that the “server computer” comprises:

the smart card emulator that receives smart card commands from a pseudo card reader module and processes said commands in conjunction with said virtual smart card database and said hardware security module, said smart card emulator arranged to retrieve one of said records from said virtual smart card database, and to deliver said monetary balance to said hardware security module and to store said encrypted decreased monetary balance received from said hardware security module in said retrieved record.

To teach this limitation, the Final Rejection points, via various citations, to a number of different devices in addition to the payment server 206. These devices include a “stored-value card 5”, a “physical card reader 210,” a “merchant server 208,” a “clearing and administration system 110,” a “personal computer” (Column 4:3-5, Column 7:6-21). In addition, these devices include “a security card 218,” a “client terminal 204,” a “concentrator 212,” a “managing database 223,” a “merchant server 208,” and a “payment server 206” (Column 8: 22-24, Column 10:50-65, Column 11:48-57; Column 14: 55-58, Column 16:22-38). It is not clear from the citations or the reasoning provided in the Final Rejection how the functions of these different devices anticipate the “server computer” of the pending claims because the Final Rejection does not identify a **single device** from these citations that is performing the required functions necessary to anticipate the pending claims.

## **2. Smart Card Emulator not on the Single Device**

In further detail, in the pending claims, the “smart card emulator” on the “server computer” receives smart card commands. In *Davis*, stored-value cards, which are separate devices from the security cards, are described as being associated with a client terminal and security cards are described as being associated with a payment server or a terminal separate from the payment server. A smart card emulator is never described as being associated with the payment server, which is necessary to anticipate the pending claims. The citations provided in the Final Rejection related to the “smart card emulator” are described in more detail as follows to support this assertion.

In Column 11:28-37, *Davis* describes that the stored-value card can be termed a “smart card.” Column 7:6-21 of *Davis* describes that the “stored-value card” is inserted into a physical card reader attached to a personal computer to make a purchase (In *Davis*, the personal computer is an example of a client terminal 204 shown in Fig. 4, which is a

different device than the payment server 206. The transaction amount associated with the purchase is captured by the security card.). In Column 11:48-57 of *Davis*, it describes that the security card authenticates the stored value card (i.e., the smart card). The “stored value card” and the “security card” of *Davis* are two different devices. Thus, the features of the stored value card associated with the client terminal can not be attributed to the payment server.

In Column 10:50-53, *Davis* describes that the client terminal 204 controls the interactions with a user and interfaces to card reader 210. In Column 16:22-38 of *Davis* it also describes that a client module 224 located on a client terminal 204 can emulate a security card. Applicant believes the examiner may be trying to equate emulation of a security card on the client terminal with a smart card emulator on the payment server. Applicant believes that this would be improper because, as noted in the proceeding paragraphs, a security card and the stored-value card are different devices. Therefore, emulation of a security card on a client terminal can not be said to teach the functions of a smart card emulator on the payment server.

Further, the Final Rejection does not identify a teaching in *Davis* that describes, as recited in the pending claims, “said smart card emulator arranged to retrieve one of said records from said virtual smart card database, and to deliver said monetary balance to said hardware security module,” Whether *Davis*, as argued by the examiner in the examiner’s answer supports, “operability is afforded to either a physical or virtual card,” *Davis* still does not teach a smart card emulator located on the payment server with the limitations described in the pending claims. Thus, *Davis* can not be said to teach a single device with all of the required limitations because a smart card emulator as described in the pending claims is not taught as being associated with the payment server.

In addition, the Final Rejection does not provide a rationale as to why “a smart card emulator” is inherently present on the payment server, which is necessary to map the payment server in *Davis* to the server computer of the pending claims. As noted in MPEP 2112 IV, the examiner must provide rationale or evidence showing inherency because the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. Applicant respectfully submits the Final Rejection does not satisfy this standard. For these reasons, *Davis* can

not be said to anticipate the pending claims and Applicant respectfully asserts the Final Rejection is improper.

### **3. Pseudo Card Reader Module not on the Single Device**

The pending claims also recite the “server computer” comprises “said pseudo card reader module that receives said smart card commands related to said purchase transaction over said network and relays said commands to said smart card emulator.”

Applicant respectfully submits *Davis* does not describe a single device, i.e., the payment server, that includes this limitation along with the other limitations previously described. The Final Rejection states the pseudo card reader module is taught in *Davis* with respect to “Column 7:6-21, Column 8:22-24, Column 10:50-65 and Column 11:48-57.” As described above, Column 7:6-21 teaches the use of a stored value card on a client terminal, such as a personal computer. Column 8: 22-24 describes the use of a security card associated with a payment server. Column 10:50-65 describes a client terminal that interfaces to a card reader that accepts a smart card. The client terminal also can talk to a payment server. Column 11:48-57 describes a security card.

In *Davis*, a “server computer” comprising “a pseudo card reader module that receives said smart card commands” is not described. These smart card interactions are described as being performed by the client terminal not the payment server. Thus, the functions of the smart card on the client terminal can not be attributed to the payment server because, as discussed above, the security card associated with the payment server is a distinct device from a smart card. The Final Rejection does not provide reasoning or a basis as to why the pseudo card reader is inherently located on the payment server. Thus, *Davis* can not be said to teach a single device with all of the pending limitations because a pseudo card reader module as described in the pending claims is not taught nor is such a device associated with the payment server. For these reasons, *Davis* can not be said to anticipate the pending claims and Applicant respectfully asserts the Final Rejection under 102(e) is improper.



**4. Single Device with a Virtual Smart Card Device, Smart Card Emulator and Pseudo-Card Reader Module is not enabled in Davis.**

Applicant respectfully submits that Davis can not be said to provide an enabling disclosure for a “virtual smart card database, a smart card emulator or a pseudo-card reader module.” MPEP 2121.01, Use of Prior Art in Rejections where Operability in Question, states:

In determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure'... ." *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968). The disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation. *Elan Pharm., Inc. v. \*\*>Mayo Found. For Med. Educ. & Research<*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003).

Applicant submits that the examiner's citation to Column 11:10-14 of *Davis* is a “mere naming” of the subject matter.

Further, I. 35 USC 102 Rejections and Addition of Evidence Showing Reference is Operable states:

It is possible to make a 35 USC 102 rejection even if the reference does not itself teach one of ordinary skill how to practice the invention, i.e., how to make or use the article disclosed. If the reference teaches every claimed element of the article, secondary evidence, such as other patents or publications, can be cited to show public possession of the method of making and/or using. *In re Donohue*, 766 F.2d at 533, 226 USPQ at 621.

Applicant does not agree with the examiner that the reference teaches every claimed element of the article as needed to sustain the rejection under 102(e). Further, assuming arguendo the reference did teach every element, the examiner in the rejection does not provide any secondary evidence, such as other patents or publications, to show public possession of the method of making or using. Therefore for these, Applicant respectfully submits that the examiner in the rejection under U.S.C. §102 (e) has not provided sufficient evidence that *Davis* includes enabling disclosure of the “virtual smart card database,” “smart card emulator,” and “pseudo-card reader. For these reasons, *Davis* can not be said to anticipate the pending claims and Applicant respectfully asserts the Final Rejection under 102(e) is improper.

**C. Virtual Smart Card Database and Pseudo-Card Reader Module are not inherent in *Davis* nor is an Enabling Description provided for these Elements in *Davis***

As argued in the Appeal Brief, the two elements “virtual smart card database,” and “pseudo-card reader” of the pending claims are not explicitly described in *Davis*. The examiner’s answer states, “In the absence of any evidence to the contrary, examiner continues to maintain that reference discloses and enables that a virtual smart card can be used.” To establish these elements are inherent, the burden falls upon the examiner, not the Applicant, “to provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” Applicant respectfully submits that the examiner in the rejection under U.S.C. §102 (e) has not provided sufficient basis in fact and/or technical reasoning to establish inherence of the “virtual smart card database,” and “pseudo-card reader” in *Davis*.

**IV. CONCLUSION**

In view of the foregoing, Appellants respectfully request that the Board reverse the examiner’s rejection under U.S.C. §102 (e) of all pending claims. In addition, Appellants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Respectfully Submitted,

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